

DRAWINGS:

In response to the Examiner's objection to the drawings not showing all features disclosed in claims 1 and 21, a new sheet is attached including new Figure 7, illustrating the delivery of an incoming message including the role of the message header, and new Figure 8, showing a temporal view of the delivery of an incoming message.

REMARKS:

By the above amendment, applicants have amended the claims to define the invention more particularly and distinctly so as to define the invention patentability over the prior art, amended the drawings to illustrate additional features of the present invention, and amended the specification to correct typographical errors and describe the drawings as presently amended.

Claim 1

Claim 1 has been amended to include all the limitations in dependent claims 2 and 4. In the last Office Action, claims 1 and 2 were rejected as being obvious over Vaudreuil (U.S. Patent No. 5,740,230) in view of Modiri (U.S. Patent No. 6,192,401 B1), and claim 4 was rejected as being obvious over Vaudreuil in view of Modiri and further in view of Rothblatt (U.S. Patent No. 6,105,060).

Claim 1 has been amended to correct indefinite wording noted by the Examiner. As part of this correction, and the combination of the subject matter of claims 1 and 4, 1(g) is written to indicate that the second communications link (between the messaging node and portable messaging unit) is used to request the collection of new messages, and to receive the message from the messaging node. This relates particularly to paragraph 173 of the present application.

Claim 1 has been further amended, in 1(g), to more particularly define that these transmissions over the second communications link (request and delivery of new messages) happen while this messaging node has no communication with external sources (e.g. central server and any other

elements of the primary messaging zone where the message may be buffered). Note that the abstract describes message collection from a messaging node while it "cannot collect from external sources", and paragraphs 10 and 11 of the present application relate the general architecture. Further, paragraphs 142 and 143 of the present application describe a messaging node informing a portable messaging unit, at the time of message transmission to a portable messaging unit, how long the messaging node has been unable to collect from external sources, clearly indicating the circumstance defined in claim 1 of delivering an incoming message at a time when the messaging node is out of communication with the central server and other messaging nodes within the primary messaging zone from which the message would be available.

Claim 1 has been amended to eliminate the phrase "messaging address identifiers", not illustrated in the drawings, in response to the Examiner's objection that not all features disclosed in the claims were present in the drawings.

Strictly for clarity, 1(c), 1(d) and 1(e) have been amended to more clearly indicate that the specific messaging node under discussion is within the primary messaging zone, and that this primary messaging zone comprises the particular messaging nodes listed in an association table record as associated with the recipient's user account.

For consistency, claim 1 has been further amended in 1(b) to speak of a user account in the singular (e.g. determining a user account identified in a message header, determining a primary messaging zone from an association table entry for that user, and delivering the message upon the request of that user). The original language made a reference to finding "at least one" user accounts, but only one user account is actually used in subsequent steps of the claim.

Two Intermittent Connections that are Not Simultaneously Active

The configuration presently defined in claim 1 includes two intermittent or temporary data connections between the central server and the portable messaging unit. Further, since message delivery from the messaging node to the portable messaging unit happens while the messaging node is disconnected from the central server, these two intermittent or temporary data connections are not simultaneous.

Conventional messaging systems may include a single temporary connection, such as a wireless connection to a portable unit or a dial-up connection to a fixed unit, in the final link of a delivery chain between a messaging node from which messages may be collected and a personal terminal where messages may be displayed. The configuration of the present invention as defined in claim 1, where an incoming message crosses *two* non-simultaneous intermittent or temporary communications links, is novel and would not be present in a combination of Rothblatt, Modiri and Vaudreuil.

Node/Network Connection Not Similar to Vaudreuil

As noted by the Examiner, the "messaging nodes" of claim 1 may be considered roughly analogous to Vaudreuil's "Digital Connection Processor" (DCP) element of a "network hub". Nodes and DCP's are both elements of a messaging system where messages are stored pending retrieval, and where retrieval may be performed over a temporary data connection to the node/DCP.

Claim 1, as amended, includes the limitation of an intermittent connection at the "first communications link" (between the node and the central server). Indeed, at the time that a

message is delivered to a portable messaging unit, the node is disconnected from the central server and other nodes. In contrast, Vaudreuil is quite explicit about the fact that network hubs are in "constant communication with one another and the network center" (column 7, lines 10-12), and that "information can be stored on any of the network hubs and be instantaneously available to any messaging system connected to the communications system" (column 7, lines 32-36). The distinction between constant and intermittent communications between a node/DCP and the rest of the network is a fundamental difference between the role of DCP's under Vaudreuil and the messaging nodes within the messaging system defined in claim 1.

As the Examiner noted in the rejection of claim 2, Vaudreuil does disclose the possibility of messages being sent across an intermittent connection between a DCP and a downstream terminal. But this is not situated in a place comparable to the intermittent first communications link defined in claim 1 (and formerly in claim 2) -- between the central server and the DCP/node. Vaudreuil clearly indicates that DCP's have constant, not (as stated in claim 1) intermittent, connections to the network center and the other DCP's/nodes. Therefore, applicants request reconsideration of the rejection of claim 2, as now applicable to claim 1.

Messaging Zones not a Cluster

In the last Office Action, the Examiner notes "... within a primary messaging zone (read as cluster) ..." and cites a method by Modiri for determining cluster membership.

By definition, a "cluster" is a group of connected computers that work as a unit. In Modiri's abstract, he explains "Each fully connected subset of nodes are grouped into a possible cluster configuration". In contrast, as defined in claim 1, messaging nodes are *disconnected* from the central server and other members of the primary messaging zone, a configuration that is

incompatible with operation as a cluster, during the critical step of message delivery. While both Modiri and the present invention recognize subsets of nodes, Modiri's subsets are characterized by being *fully connected* while subsets in the present invention are *fully disconnected* when messages are delivered. Therefore, a "primary messaging zone" cannot act like a cluster, and lacks the basic properties of a cluster.

A cluster management system, such as Modiri, is useful when assigning tasks that could be performed by any of several computers. This property is not found in the application of a "primary messaging zone" as defined in claim 1. The action with respect to a "primary messaging zone" is the buffering of a message for delivery from one of these nodes (subsequently selected by the user) while that node is disconnected. If a message is *not* buffered at the node selected by the user, then the message delivery system fails. Therefore, applicants submit that there would be no motivation for applying Modiri in the context of primary messaging zones as presently defined in claim 1. Applicants also submit that their invention is much more than merely keeping incoming messages at messaging nodes within dynamically assigned clusters.

Messaging Nodes not Messaging Addresses

Vaudreuil describes "User Profiles and Address Translation", in which a message for a recipient is forwarded to other messaging user addresses (e.g. phone numbers and e-mail identifiers) listed in a database resembling an association table. This is unlike the association table defined in 1(a), where the association table relates users with *messaging nodes* within the messaging system. The claim clearly shows that "messaging nodes" are message distribution computers within the messaging system, a physical element of the messaging system, not a messaging user address. Vaudreuil's discussion of address translation, in essence, teaches repackaging the message and forwarding (re-sending) it to a new address. Vaudreuil does not teach that the association table

identifies particular messaging *nodes* associated with a user, and the present invention as defined in the claim does not describe address translation.

This may be clear by analogy to standard postal mail, where a message is contained within an envelope, and the delivery address is written on the outside of the envelope. Vaudreuil's "address translation", in essence, describes an association table relating a particular user (recipient address) with other addresses; Vaudreuil then replicates and re-sends the message (contents of the envelope) to a new address read from the association table. In contrast, the present invention describes something like replicating the entire envelope (address and contents) *without* changing the recipient address, and putting copies of the envelope on multiple delivery vans, where the recipient may subsequently collect the message from any of these delivery vans. While both Vaudreuil and the present invention describe an association table, the contents of that table are not similar, and Vaudreuil does not anticipate an association table with the type of data stored in the association table defined in claim 1. Therefore, the step of "maintaining an association table, associating user accounts with at least one messaging node" is not taught by Vaudreuil, and is absent from the proposed combination of Vaudreuil and Modiri. Applicants submit that their invention is much more than merely translating between addressing nomenclature used in different messaging systems.

Proposed Combination of Vaudreuil and Modiri Inoperable

Regarding Modiri, the Examiner notes that a "primary messaging zone" should be read as a cluster. Modiri describes dynamically assigned clusters, so the "primary messaging zone" is presumably a dynamically assigned cluster in the proposed combination with Vaudreuil. Since the cluster is dynamically assigned, the cluster cannot *also* be predefined in an association table record for a specific user. Therefore, the proposed combination of Vaudreuil and Modiri would be inoperable. Further, the incompatibility between definitions of a primary messaging zone

indicates that there would be no motivation to combine Vaudreuil and Modiri in the particular manner described.

Novel Features over Proposed Combination

For these reasons, claim 1 has novel physical features over the proposed combination of Rothblatt, Vaudreuil and Modiri, or any combination thereof, and applicants submit that the novel physical features of claim 1 are also unobvious and hence patentable under §103 since they produce new and unexpected results over Rothblatt, Vaudreuil and Modiri, or any combination thereof. These new and unexpected results include allowing users with a portable messaging unit to approach a "messaging node" within a user-associated "primary messaging zone", establish a temporary connection to that node from the user's portable messaging unit, and retrieve messages -- even while that messaging node is disconnected from the network.

Claim 15

In the last Office Action, claim 15 was rejected as being obvious over Vaudreuil (U.S. Patent No. 5,740,230) in view of Modiri (U.S. Patent No. 6,192,401 B1).

Claim 15, like claim 1 as discussed previously, has been amended for consistency to speak of a user account in the singular. Claim 15 has been further amended to indicate that the incoming message is transmitted to, and buffered at, a plurality of messaging nodes within the primary messaging zone prior to the delivery of the incoming message to the portable messaging unit from one of these nodes. This clarifies the function of the messaging nodes referenced in claim 15, and relates particularly to paragraphs 98 and 116-118 of the present application.

Buffering at multiple nodes for delivery while disconnected

As discussed above with respect to claim 1 ("Messaging Nodes not Messaging Addresses"), Vaudreuil does not teach an association table relating user accounts with messaging nodes at all. Even more, Vaudreuil does not teach an association table relating a particular user account with a *plurality* of messaging nodes, as defined in claim 15.

The buffering defined in claim 15 includes storing incoming messages at multiple distributed nodes (collectively the "primary messaging zone") throughout a messaging system, in advance of the termination of the first communications links between each of these nodes and the broader network, and the delivery of these messages from a disconnected node while the node has no access to the broader network. These features are not present in Vaudreuil or Modiri, or any combination thereof.

Even if the proposed combination of Vaudreuil and Modiri was justified and operable, and taught the transmission of a message to a messaging node within a cluster (i.e. "primary messaging zone" in the reading proposed by the Examiner in the last Office Action), nothing in Vaudreuil or Modiri teaches the transmission of a message to, and buffering at, a *plurality* of messaging nodes *within the same cluster*. Since these nodes (being part of a cluster) would, by definition, be in communication, there is no apparent motivation for buffering the message at *multiple* nodes that have the cluster relationship necessary under the interpretation of the claim relative to Modiri.

For these reasons, claim 15 has novel physical features over the proposed combination of Vaudreuil and Modiri, or any combination thereof, and applicants submit that the novel physical

features of claim 15 are also unobvious and hence patentable under §103 since they produce new and unexpected results over Vaudreuil and Modiri, or any combination thereof.

The present invention has the advantage of enabling delivery of messages even when delivery is requested from a user-selected messaging node within the "primary messaging zone" (a set of nodes where messages for this user will be buffered and available) while the selected messaging node is disconnected from the rest of the network, and even without specific foreknowledge of which particular node the recipient will select when collecting messages.

Claims 3-19

Claim 3 has been amended in response to the Examiner's observation that the useful meaning and definition of "multilevel network architecture" is not defined and provided in the claim. As described in paragraph 208 of the present invention, a multilevel network architecture may include a "tree network". In computer science, a tree is a structure where a root node (e.g. central server) is connected through branching links to second-layer nodes, etc, until eventually the links reach "leaves" (e.g. messaging nodes) at the outer boundary of the tree. For example, as discussed in paragraph 208, "regional message distribution and administrative servers" can serve as intermediate nodes between the central server and messaging nodes within particular regions. In general, the "tree network" discussed in paragraph 208 places multiple communications links between the central server and the messaging nodes, as information is spread from the root across links (branches) towards one or more leaves. Therefore, strictly for clarity, the claim has been amended to indicate that a multilevel network architecture includes "a sequence of multiple communications links between network elements comprising said first communications link between said central server and said messaging node".

Claims 5-12, formerly dependent to canceled claim 4, have been amended to make these claims dependent to claim 1. In addition, claim 12 has been amended to correct indefinite wording noted by the Examiner.

Claim 19 has been rewritten to incorporate the subject matter of dependent claim 20 (webpage retrieval), for clarity to eliminate the term "advanced network functions", and to more particularly define that the contents of the retrieved webpage are presented in the incoming message. This relates particularly to paragraph 185 of the present application.

Dependent claims 3-19 incorporate all the subject matter of claim 1 and add additional subject matter which makes them a fortiori and independently patentable over these references.

Claim 21

In the last Office Action, claim 21 was rejected as being obvious over Leonard et al. (U.S. Patent No. 6,721,784 B1) in view of Vaudreuil (U.S. Patent No. 5,740,230).

Claim 21 has been amended to more particularly define that the first communications link (between a messaging node and a central server) is an intermittent connection, relating particularly to paragraphs 84 and 101 of the present application. Claim 21 has also been amended to more particularly define that a user request to a messaging node for message delivery, and the resulting message delivery (from a messaging node) happens while this node has no communication with the central server, relating particularly to the abstract and paragraphs 10, 11, 142 and 143 of the present application. Claim 21, like claim 1 as discussed previously,

has been amended for consistency to speak of a user account in the singular.

Claim 21 has been amended to eliminate the phrase "messaging address identifiers", not illustrated in the drawings, in response to the Examiner's objection that not all features disclosed in the claims were present in the drawings.

Strictly for clarity, claim 21 has been amended to indicate more clearly that messaging nodes provide access to locally buffered messages for a plurality of user accounts, and in (c) and (d) to more clearly indicate that the members of (e.g. objects within) said primary messaging zone are messaging nodes, and that the incoming message is transmitted to this group of nodes. In addition, strictly for clarity, claim 21 has been amended in (e) to more clearly indicate that the messaging nodes where the message is buffered for the recipient are within the primary messaging zone associated with that user account.

Claim 21 has been amended to correct indefinite wording similar to the indefinite wording in claim 1 that was noted by the Examiner. As part of this correction, claim 21 has been written in (f) to indicate that the collection of messages is requested by the user at this messaging node, and that these messages are delivered from this node. This relates particularly to paragraph 173 of the present application.

Clarification of Messaging Node terminology

In the rejection of claim 21 in the last Office Action, the Examiner cited Figure 17 in Leonard as an illustration of "a plurality of messaging nodes" within Leonard. The figure illustrates a

plurality of message *recipients*, and other aspects of the Examiner's comments indicate an interpretation of "messaging nodes" as messaging addresses. This interpretation is foreign to the intended meaning of the term "messaging nodes", as is evident from the specification, where "messaging nodes" refers broadly to a class of physical elements where messages are buffered and may be collected upon request. The distinction is similar to that between a cellphone number (a logical construct for one user that may be located anywhere) and a cellphone tower (a physical construct in a particular location that may serve various users in range). There is clearly a conceptual difference between a method involving a plurality of cellphone users (analogous to Leonard) and one involving a plurality of cellphone towers (analogous to the present invention). Claim 21 has been amended to distinguish the present invention as defined in claim 21 from the proposed combination of Leonard and Vaudreuil, in particular by indicating that messaging nodes provide access to locally buffered messages for a plurality of user accounts.

Messaging Nodes not Messaging Addresses

As discussed above with respect to claim 1 ("Messaging Nodes not Messaging Addresses"), Vaudreuil does not teach an association table relating user accounts with messaging nodes, where "messaging nodes" are understood as physical network elements where messages may be collected, and not (as in Vaudreuil) messaging user addresses. Therefore, the proposed combination of Leonard and Vaudreuil would not include the element of "maintaining an association table, associating user accounts with at least one messaging node" provided the definition of "messaging node" in claim 21 as amended.

Messaging Zones not a Message List or Affinity Group

Leonard describes a messaging system (such as a "message list" or "affinity group") where a single message is distributed to multiple people. Naturally, when a message is distributed to multiple people, the message may become stored on multiple computers in distributed locations. This type of behavior is commonplace in e-mail systems.

As noted above, "messaging nodes" are not messaging addresses. In the definition within 21(c), the "primary messaging zone" is a list of messaging nodes read from a database record for a single message recipient, where these nodes are message distribution computers and not additional message *recipients*. Leonard does not teach the step defined in 21(c). Leonard identifies a group of multiple recipients based on the identity of an initial recipient, but Leonard does not identify a predefined set of *messaging nodes* as presently defined in the claim from an association table record for a *single* message recipient.

In the definition within 21(d), the message is transmitted to the messaging nodes identified in 21(c). Leonard does not teach the step defined in 21(d). Leonard may transmit a message to multiple recipients, or identify when a message has become transmitted to multiple recipients (e.g. when one recipient forwards the message to other people), but Leonard does not transmit the message to a predefined set of *messaging nodes* from an association table record for a *single* message recipient (the definition in the claim for a "primary messaging zone").

Therefore, these elements provide further distinction between the present invention as defined in claim 21 and the proposed combination of Leonard and Vaudreuil.

Intermittent First Communications Link

Claim 21, as amended, includes the limitation of an intermittent first communications link.

Neither Vaudreuil nor Leonard disclose an intermittent first communications link. As discussed previously with respect to claim 1, under "Node/Network Connection Not Similar to Vaudreuil", the node/DCP units in Vaudreuil are in constant communication with the central server and each other, and no intermittent connection is indicated at this location in the network architecture. Such an intermittent connection is also foreign to Leonard. Therefore, this intermittent first communications link distinguishes the present invention as defined in claim 21 from the proposed combination of Leonard and Vaudreuil.

Novel Features over Proposed Combination

For these reasons, claim 21 has novel physical features over the proposed combination of Leonard and Vaudreuil, or any combination thereof, and applicants submit that the novel physical features of claim 21 are also unobvious and hence patentable under §103 since they produce new and unexpected results over Leonard and Vaudreuil, or any combination thereof. These new and unexpected results include allowing users with a portable messaging unit to approach any "messaging node" within a user-associated "primary messaging zone" and retrieve messages -- even while that messaging node is disconnected from the network, and even without specific foreknowledge of which particular node the recipient will select when collecting messages.

New Claims 23-26

New claim 24 limits claim 21 with the limitation of a portable messaging unit, and specific steps involving that unit. This is analogous to subject matter formerly presented in claim 4 and currently incorporated into claim 1 as amended, and relates particularly to paragraphs 161 and 173 of the present invention. The configuration of the present invention as defined in claim 24, where an incoming message crosses *two* non-simultaneous intermittent or temporary communications links, provides the novel and unforeseen benefit of being able to collect messages on a portable messaging unit from a messaging node that lacks active communications with the rest of the messaging system.

New claims 23 (under 21) and 25 (under 24) indicate that the incoming message is transmitted to, and buffered at, a plurality of messaging nodes within the primary messaging zone prior to the delivery of the incoming message from one of these nodes. In the case of claim 25, delivery comprises transmission to the portable messaging unit. The subject matter of claims 23 and 25 relate particularly to paragraphs 98 and 116-118 of the present application.

In the configuration of the present invention as defined in claims 23 and 25, an incoming message is "pushed" to a plurality of messaging nodes during those times when communications is available over intermittent first communications links to these nodes. Then the message is stored at these multiple messaging nodes, "leaves" of the messaging tree. This provides the novel and unforeseen benefit of being able to collect messages from any of these messaging nodes (comprising the primary messaging zone), even while the selected node is disconnected from the rest of the network, without foreknowledge of the specific messaging node where a user will attempt to collect new messages. Neither Leonard nor Vaudreuil anticipate the possibility of a messaging node within a messaging system being out of communication with the rest of the messaging system, nor do they propose storing messages *for a single recipient* at multiple

messaging nodes from which the recipient may choose to retrieve new messages.

New claim 26 further limits 25 with the limitation of distributed mail deletion, a subject matter relating particularly to paragraphs 136 and 137 of the present invention. This method has the benefit of deleting -- upon successful delivery of the message from a messaging node -- buffered copies of the message still awaiting delivery at other nodes, copies no longer needed because the message has already been delivered.

Dependent claims 23-26 incorporate all the subject matter of claim 21 and add additional subject matter which makes them a fortiori and independently patentable over these references.

New Claim 27

New independent claim 27 combines the subject matter of claims 2 and 15, each rejected in the last Office Action as being obvious over Vaudreuil (U.S. Patent No. 5,740,230) in view of Modiri (U.S. Patent No. 6,192,401 B1). Claim 27 is further clarified and limited for several reasons similar to those presented with respect to claim 1 in the present amendment. For clarity, claim 27 is written to indicate that the "messaging nodes" each provide access to locally buffered messages for a plurality of user accounts, creating a clear distinction from interpretations of the claim wherein a "messaging node" is a messaging address (e.g. e-mail address, telephone number, etc).

Arguments presented with respect to claim 15 under "Buffering at multiple nodes for delivery while disconnected", and with respect to claim 1 (now incorporating the subject matter of claim

2) under "Node/Network Connection Not Similar to Vaudreuil", "Messaging Zones not a Cluster", "Messaging Nodes not Messaging Addresses", and "Proposed Combination of Vaudreuil and Modiri Inoperable" are herein incorporated by reference, as applicable to new claim 27.

For these reasons, claim 27 has novel physical features over the proposed combination of Vaudreuil and Modiri, or any combination thereof, and applicants submit that the novel physical features of claim 15 are also unobvious and hence patentable under §103 since they produce new and unexpected results over Vaudreuil and Modiri, or any combination thereof.

The present invention has the advantage of enabling delivery of messages even when delivery is requested from a user-selected messaging node within the "primary messaging zone" (a set of nodes where messages for this user will be buffered and available) while the selected messaging node is disconnected from the rest of the network, and even without specific foreknowledge of which particular node the recipient will select when collecting messages.

The Objection to the Specification

Due to a typographical error, an incorrect patent number was given for a patent to Notarianni, et al, discussed in paragraph 9 of the specification. The correct U.S. patent number (5,621,890) was listed in the information disclosure statement. This error in the specification has been corrected, and all references discussed in the specification, as amended, are cited in the information disclosure statement that was previously filed. In addition, due to typographical errors, a space was missing between two words in the specification, and one word was misspelled. These errors have also been corrected.

The Objection to the Drawings

In the last Office Action, the Examiner indicated that not all features disclosed in claims 1 and 21 were shown in the drawings. In response, the term "messaging address identifier" has been removed from the claims, new Figure 7 is added illustrating the delivery of a message including the role of the message header, and new Figure 8 provides a temporal view of the same process. The specification is amended to include an appropriate explanation of Figures 7 and 8, including listing of new reference numerals. All material illustrated in Figures 7 and 8 were present and explained in detail in the specification as originally filed, and no new matter is entered.

The structure of an incoming message, including a header indicating one or more recipients, relates particularly to paragraph 130 of the present application. Processing of an incoming message starting at central server 12, the association table defining a primary messaging zone for a particular recipient (relating instances of user accounts to individual messaging nodes), and the transmittal of the incoming message from the central server to those nodes within the primary messaging zone, relate particularly to paragraph 117 of the present application. Communications opportunities to each messaging node are intermittent, of different types, and may happen at different times, so a single incoming message may be distributed to different nodes at widely different times by necessity, relating particularly to paragraphs 84 and 107 of the present invention. The transmission of the message from one of these messaging nodes to a portable messaging unit, across the second communications link, relates particularly to paragraphs 118 and 172 of the present application. Once a message has been transmitted to a portable messaging unit, the rest of the messaging system may consider the message delivered, and a cancellation command may be sent back through the system (distributed from the central server like an incoming message) to trigger deletion of the delivered message through the distributed network, relating particularly to paragraphs 136 and 137 of the present invention.

CONCLUSION

For all the above reasons, Applicants submit that the specification and claims are now in proper form, and that the claims all define patentability over the prior art. Therefore they submit that this application is now in condition for allowance, which action they respectfully submit.

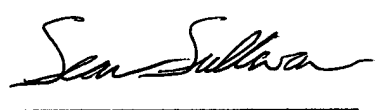
Conditional Request for Constructive Assistance

Applicants have amended the claims of this application so that they are proper, definite, and define novel structure which is unobvious. If, for any reason this application is not believed to be in full condition for allowance, applicants respectfully request the constructive assistance and suggestions of the Examiner pursuant to M.P.E.P. § 2173.02 and § 707.07(j) in order that the undersigned can place this application in allowable condition as soon as possible and without the need for further proceedings.

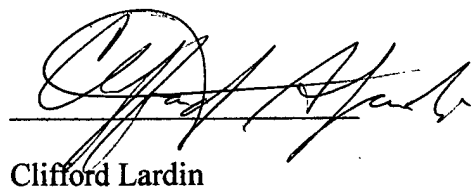
Very respectfully,

 6/18/05

David Holbrook

 6/23/05

Terence Sean Sullivan

 8/19/05

Clifford Lardin



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I hereby certify that this correspondence, and attachments, if any, will be deposited with the United States Postal Service by First Class Mail, postage prepaid, in an envelope addressed to "Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" on the date below:

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Inventor's Signature: Sean Sullivan